

**EXHIBIT A**  
**Scott River Fish Passage through Diversion Ditch Re-Profiling Project**  
**SCOPE OF WORK**

Under direction of the Department of Fish and Game (DFG), and under the following conditions and terms, the Grantee will:

1. Improve fish passage for Chinook and coho salmon, and steelhead trout at six sites located on tributaries to the Scott River, in Siskiyou County. Tributaries include: French, Shackleford, Mill, Etna creeks, East Fork Scott River, South Fork Scott River. The objective is to provide year round access to spawning habitat for adult salmonids and rearing habitat for juvenile salmonids.
2. Conduct work at the following locations:
  - South Fork Scott River – Callahan Ditch; T43N R10W sec 20; Latitude 41.298N Longitude 122.804 W; 2.1 miles from confluence with Scott River
  - East Fork Scott River – Callahan Ditch; T40N R8W sec 15; Latitude 41.311N, Longitude 122.764 W; 2.3 miles from confluence with Scott River
  - Shackleford Creek – Freitas Ditch; T43N R10W sec 2; Latitude 41.606 N, Longitude 122.962 W; 3.6 miles from confluence with Scott River
  - Mill Creek – Big Ditch; T41N R10W sec 22; Latitude 41.559 N, Longitude 122.989 W;
  - French Creek – Green Ditch; T41N R9W sec 15; Latitude 41.401 N, Longitude 122.869 W; 2.6 miles from confluence with Scott River
  - Etna Creek – Depew Ditch; T42N R9W sec 33; Latitude 41.446 N, Longitude 122.894 W; 2.5 miles from confluence with Scott River.

The sites are depicted in Exhibit C, Project Location Map, as attached and made part of this agreement by this reference.

3. Treatments by site:
  - South Fork Scott River – Callahan Ditch - Install 18” head gate, install 60” of 18” pipe after the head gate and profile ditch to fish screen, remove bedrock high point from diversion ditch by installing 500’ of culvert to develop siphon around high point;
  - East Fork Scott River – Callahan Ditch - Install 24” head gate and 60” of pipe, profile new ditch grade, lower fish screen to match new grade, re-profile ditch, bore new 15” pipe under the Highway 3 on grade;
  - Shackleford Creek – Freitas Ditch – Lower the existing head gate and move it closer to the wetted channel or move the screen closer to the point of diversion, re-profile ditch to fish screen, install 300’ of pipe after the fish screen, re-install the measuring weir on new grade;
  - Mill Creek – Big Ditch – re-set existing head gate, re-profile ditch to fish screen and install 60’ of culvert, re-install fish screen at new elevation, re-install measuring weir at new grade;

- French Creek – Green Ditch – Remove and re-install head gate at lower elevation, consult with DFG on moving the fish screen closer to the point of diversion, re-profile ditch, install 300' of pipe to reduce slope;
  - Etna Creek – Depew Ditch – Install 30" head gate, install buried culvert for 80', consult with DFG on lowering fish screen elevation, re-profile ditch after fish screen and pipe for 400', install measuring weir.
4. Improve fish passage by providing access to habitat for salmonids by completing the following work:
    - Conduct level and/or topographic surveys of the project sites. The surveys shall consist of longitudinal profiles, cross-sections, and survey of pertinent topographic features. The extent of the surveys shall be sufficient to provide an accurate description of existing conditions of the channel, diversion ditch and the surrounding area.
    - Survey information will be used to formulate recommendations for treatments at each site. Recommendations may include building channel elevation at point of diversion, reducing diversion ditch elevation, or moving the point of diversion upstream to gain elevation.
    - The Grantee, the water users, DFG and NRCS will review the recommendations and the Grantee will develop site specific, construction ready plans. Design drawings must show structural dimensions in plan, elevation, and cross-sectional views along with important component details. Plans shall also show implementation specific details such as equipment access, water diversion and fish relocation if necessary. Ditch hydraulic calculations shall be provided which show that diversion provides sufficient head to divert maximum diversion flow and fish screen bypass flow at minimum stream flow considering head losses at flow measurement devices, fish screens, pipes, open ditches, head gates, etc.
    - Existing fish screens may be relocated vertically or closer to the point of diversion if deemed necessary to accomplish fish passage/diversion modifications. Plans to relocate/rebuild existing fish screens shall be approved by the DFG Fisheries Engineering Team prior to implementation.
    - The Grantee and water users will select a contractor to implement the project and provide the appropriate materials. The Grantee project coordinator will be on site to ensure proper materials and implementation methods are used.
    - Install a head gate and a measuring weir on any diversion currently without one.
    - Any disturbed soils will be seeded, mulched and planted with native plants.
  5. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.
  6. The Grantee shall notify the Grant Manager a minimum of five working days before the project site is de-watered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the implementation of the water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires dewatering of the site,

and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to listed salmonids:

- Fish relocation and dewatering activities shall only occur between July 1 and October 31 of each year.
  - The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
  - All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act*, June 2000.
  - The Grantee will provide fish relocation data to the Grant Manager on a form provided by the Department of Fish and Game.
  - Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.
7. Fish passage improvements shall follow the National Marine Fisheries Service (NMFS 2001) *Guidelines for Salmonid Passage at Stream Crossings and DFG criteria for fish passage* as described in the Third Edition, Volume II, Part IX and Part XII of the *California Salmonid Stream Habitat Restoration Manual*. Fish screen design and construction will follow guidelines developed by DFG and NOAA Fisheries as described in Appendix S, June 2000 Version, Third Edition, *California Salmonid Stream Habitat Restoration Manual*, Flosi et al
8. All habitat improvements will be in accordance with techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*.
9. Work in flowing streams is restricted to July 1 through October 31. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game. Planting of tree seedlings will take place after December 1 or when sufficient rainfall has occurred to insure the best chance of survival of the seedlings. The standard for success is 80% ground cover for broadcast planting of seed, after a period of three years.
10. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, Microsoft Word compatible, copy a CD. If the project is not completed in the current year, the Grantee will submit a summary of the completed portion no later than December 1 and again each year until completed. The report shall include, but not necessarily be limited to the following information:
- Grant number
  - Project name
  - Geographic area (e.g., watershed name)
  - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map

- Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
- Project start and end dates and the number of person hours expended
- Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service)
- Expected benefits to anadromous salmonids from the project
- Labeled before and after photographs of any restoration activities and techniques
- Specific project access using public and private roads and trails, with landowner name and address
- Complete as built project description
- Report measurable metrics for the project by responding to the restoration project metrics listed below. Habitat Protection and Restoration Projects– Reporting Metrics (HB) (Report N/A to those that do not apply)

#### Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
  - Design spec achieved
  - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

#### Fish Passage Improvement Projects (HB):

- Miles of stream treated
- Number of rocked fords placed
- Number of barriers other than culverts treated for fish passage.
- Type(s) of barriers treated, select from: diversion dam; push-up dam; wood or concrete dam; weir; logs; or debris.
- Number of miles made accessible by removing barriers other than culverts.
- Number of measuring weirs installed.

#### Fish Screen Projects (SC)

- Miles of stream treated
- Number of screens installed/modified
- Flow rate in cfs of diversions treated
- Acre feet of water protected.

11. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant Program on any signs, flyers, or other types of written communication or notice to advertise or explain the Scott River Fish Passage through Diversion Ditch Re-Profiling Project in the Scott River Basin Project.

Exhibit C  
Scott River Fish Passage through Diversion Ditch Re-Profiling  
Project Location Map 1  
T43N R10W S2 & 22 Greenview Quad  
Siskiyou County

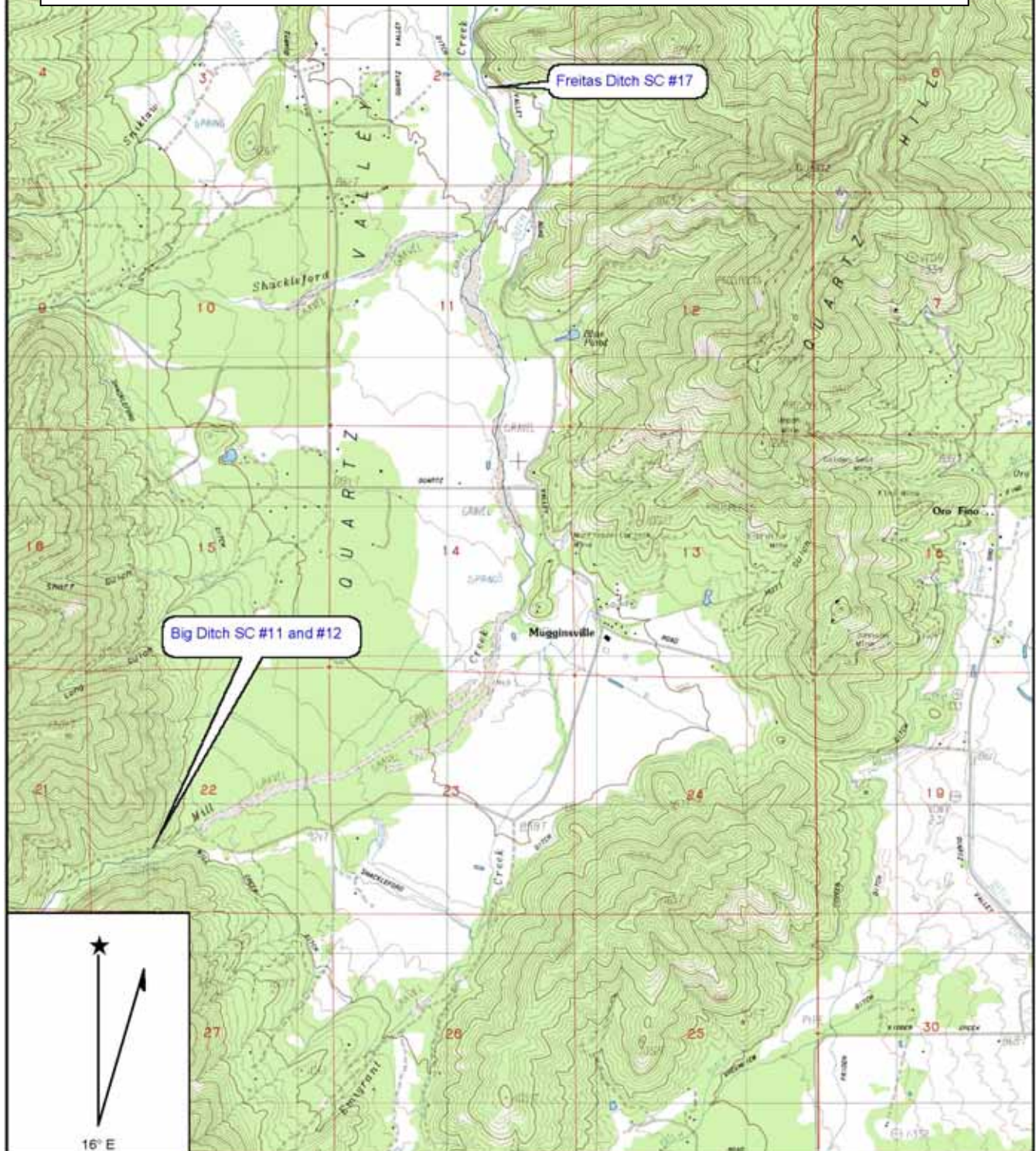




Exhibit C  
Scott River Fish Passage through Diversion Ditch Re-Profiling  
Project Location Map 2  
T42N R09W S33; T41N R09W S15 McConaughy, & Etna Quads  
Siskiyou County

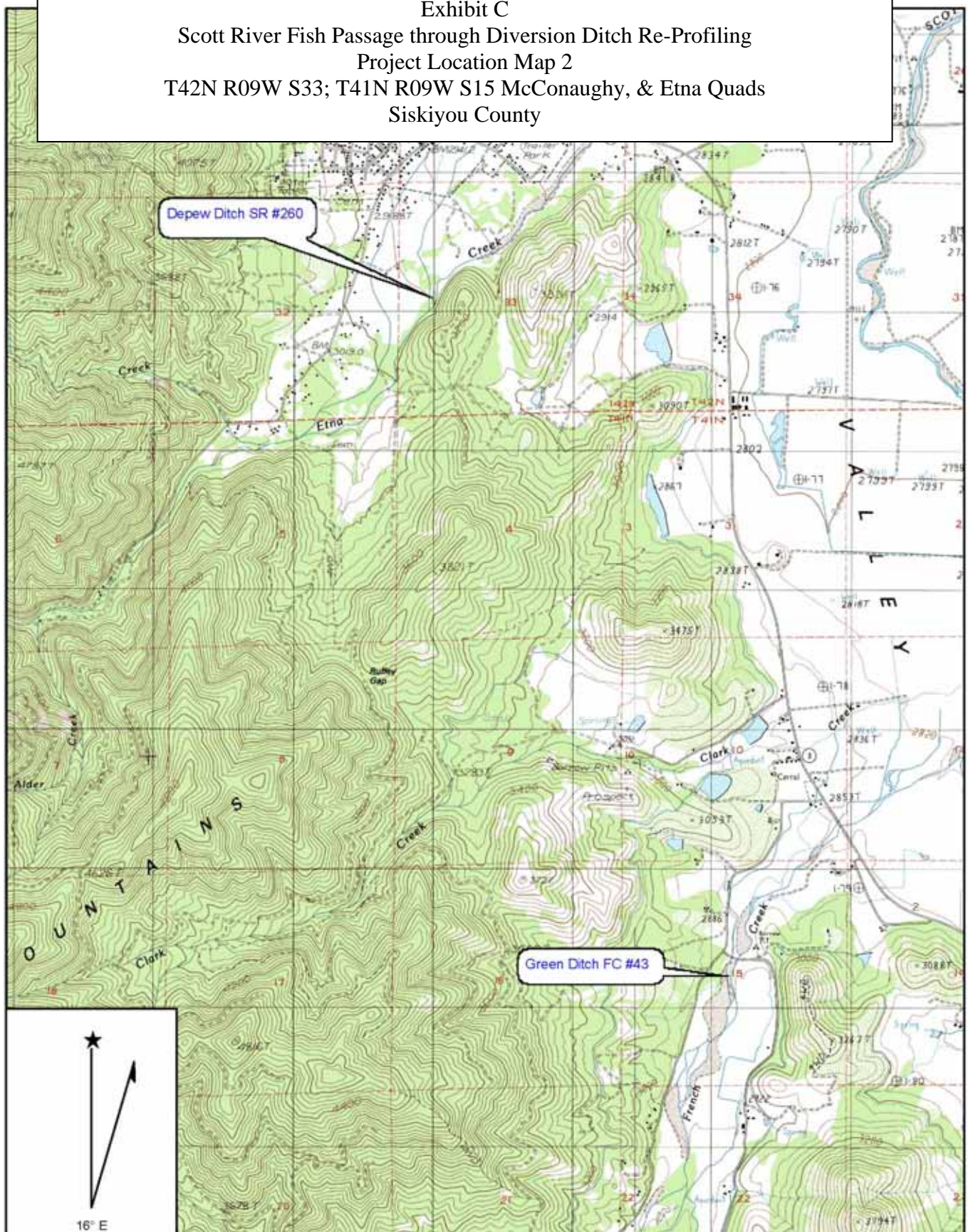




Exhibit C  
Scott River Fish Passage through Diversion Ditch Re-Profiling  
Project Location Map 3  
T40N R08W S15 & 20 Callahan Quad  
Siskiyou County

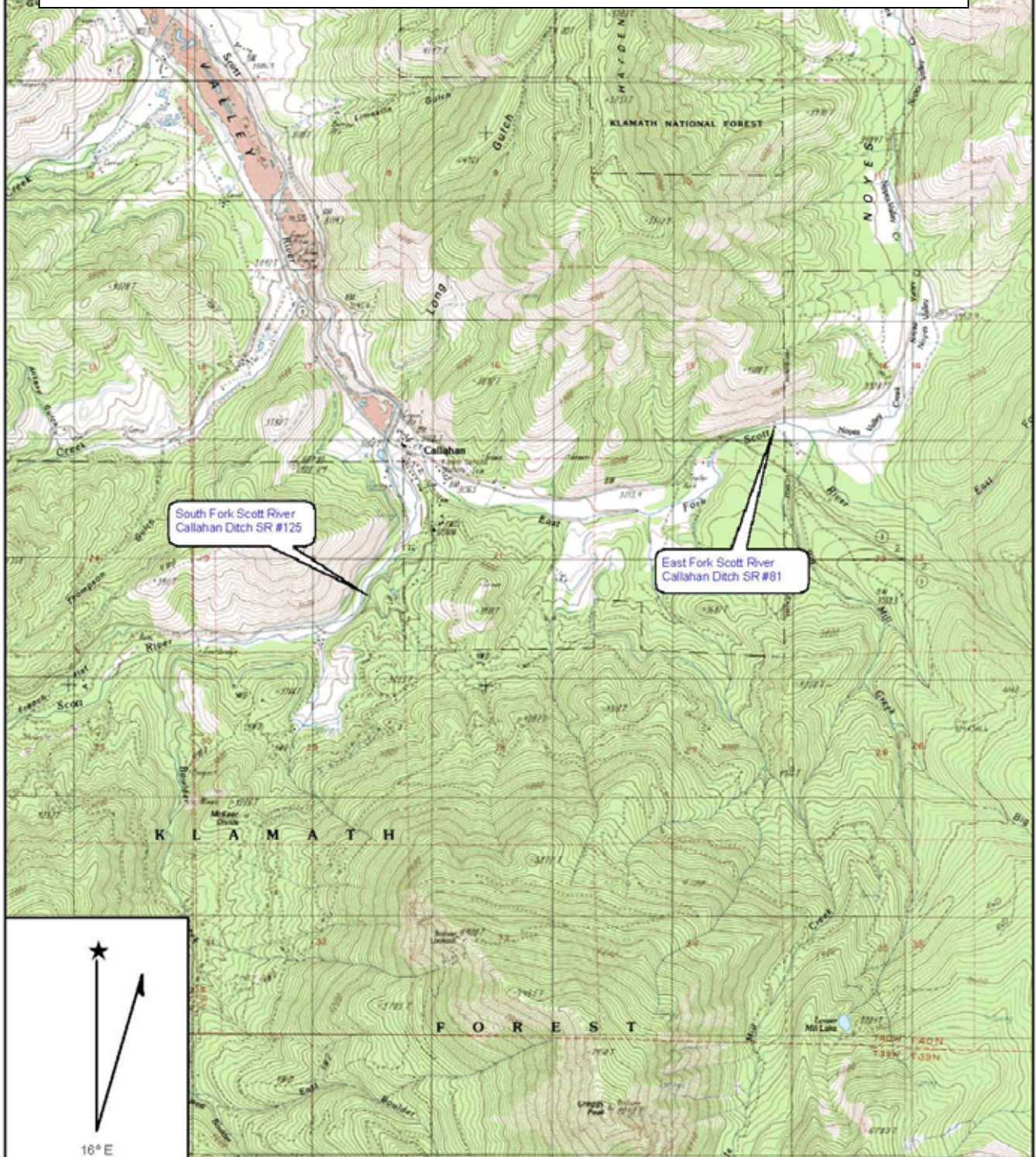
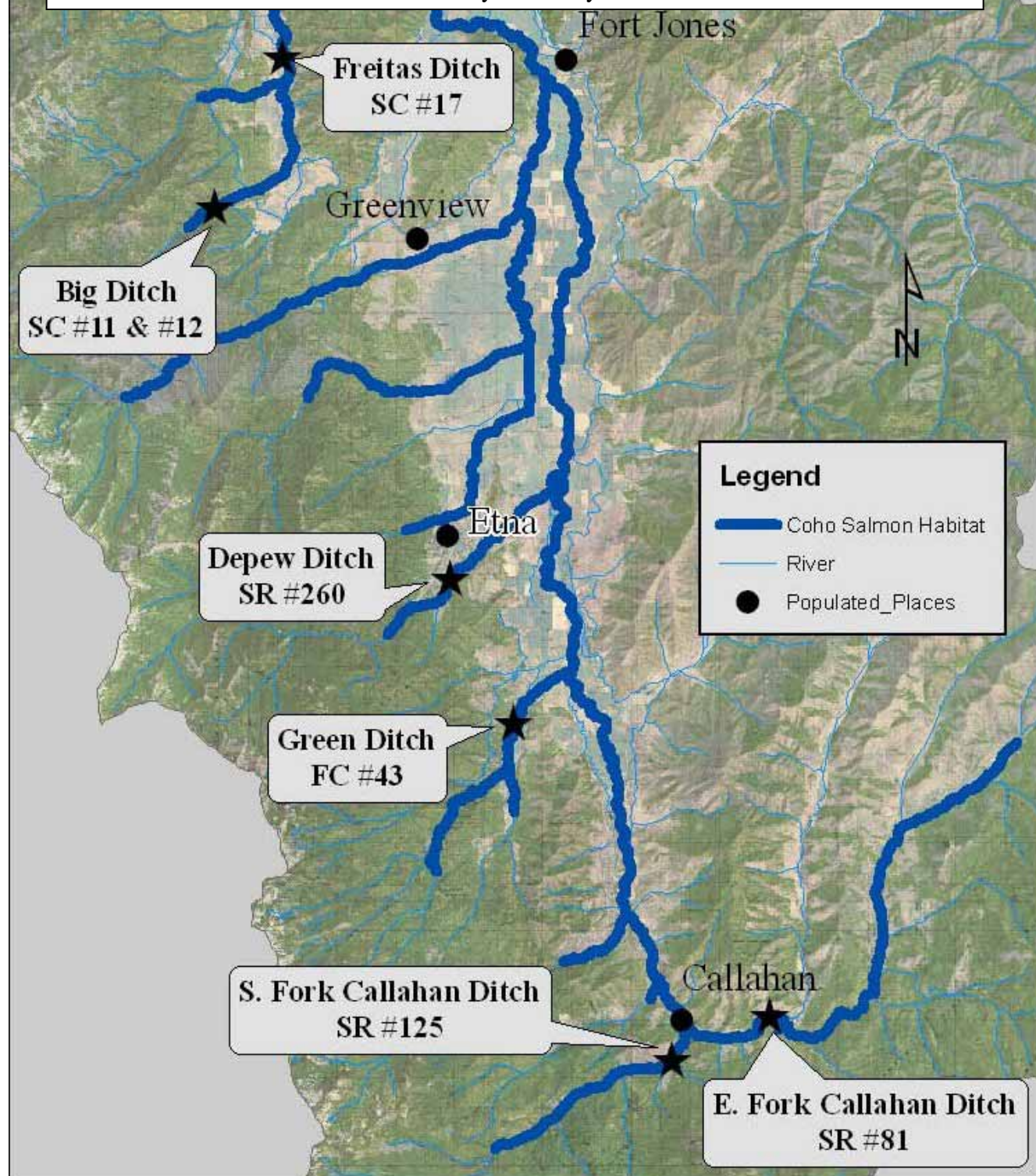




Exhibit C  
Scott River Fish Passage through Diversion Ditch Re-Profiling  
Project Location Overview Map  
T43N R10W S2 & 22; T42N R09W S33; T41N R09W S15; T40N R08W S15 & 20  
Greenview, McConaughy, Etna, & Callahan Quads  
Siskiyou County



Cartography by E. Yokel  
Ssiskiyou RCD - May 2009



California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Greenview, McConaughy Gulch, Etna, and Callahan Quads and Surrounding Quads for:

Scott River Fish Passage through Diversion Ditch Re-Profiling

T43N R10W S2 & 22; T42N R09W S33; T41N R09W S15; T40N R08W S15 & 20

United States

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 American (=pine) marten <i>Martes americana</i>	AMAJF01010			G5	S3S4	
2 American peregrine falcon <i>Falco peregrinus anatum</i>	ABNKD06071	Delisted	unknown code...	G4T3	S2	
3 California wolverine <i>Gulo gulo</i>	AMAJF03010		Threatened	G4	S2	
4 Cascade grass-of-Parnassus <i>Parnassia cirrata</i> var. <i>intermedia</i>	PDSAX0P044			G5T2T3	S2	2.2
5 Cascades frog <i>Rana cascadae</i>	AAABH01060			G3G4	S3	SC
6 Darlingtonia Seep	CTT51120CA			G4	S3.2	
7 Dudley's rush <i>Juncus dudleyi</i>	PMJUN01390			G5	S2.3?	2.3
8 Engelmann spruce <i>Picea engelmannii</i>	PGPIN03030			G5	S2.2	2.2
9 English Peak greenbriar <i>Smilax jamesii</i>	PMSMI010D0			G2	S2	1B.3
10 English sundew <i>Drosera anglica</i>	PDDRO02010			G5	S2S3	2.3
11 Great Basin claytonia <i>Claytonia umbellata</i>	PDPOR030P0			G5?	S1.3	2.3
12 Henderson's fawn lily <i>Erythronium hendersonii</i>	PMLIL0U070			G4	S1.3	2.3
13 Howell's sandwort <i>Minuartia howellii</i>	PDCAR0G0F0			G4	S3.2	1B.3
14 Humboldt marten <i>Martes americana humboldtensis</i>	AMAJF01012			G5T2T3	S2S3	SC
15 Klamath Mountain buckwheat <i>Eriogonum hirtellum</i>	PDPGN082T0			G2	S2.2	1B.3
16 Klamath gentian <i>Gentiana plurisetosa</i>	PDGEN060V0			G2G3	S2S3.3	1B.3
17 Klamath manzanita <i>Arctostaphylos klamathensis</i>	PDERI041R0			G2	S2	1B.2
18 Oregon polemonium <i>Polemonium carneum</i>	PDPLM0E050			G4	S1	2.2
19 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate	unknown code...	G5	S2S3	SC
20 Pacific silver fir <i>Abies amabilis</i>	PGPIN01010			G5	S3.3	2.3
21 Pacific tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
22 Pickering's ivesia <i>Ivesia pickeringii</i>	PDROS0X0D0			G2	S2.2	1B.2

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Greenview, McConaughy Gulch, Etna, and Callahan Quads and Surrounding Quads for:

Scott River Fish Passage through Diversion Ditch Re-Profiling

T43N R10W S2 & 22; T42N R09W S33; T41N R09W S15; T40N R08W S15 & 20

United States

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
23 Scott Bar salamander <i>Plethodon asupak</i>	AAAAD12560		Threatened	G1G2	S1S2	
24 Scott Mountain bedstraw <i>Galium serpenticum ssp. scotticum</i>	PDRUB0N1Y6			G4G5T2	S2.2	1B.2
25 Scott Mountain phacelia <i>Phacelia dalesiana</i>	PDHYD0C140			G3	S3.3	4.3
26 Scott Mountain sandwort <i>Minuartia stolonifera</i>	PDCAR0G110			G1	S1.3	1B.3
27 Scott Mountains fawn lily <i>Erythronium citrinum var. roderickii</i>	PMLIL0U042			G4T3	S3	1B.3
28 Scott Valley buckwheat <i>Eriogonum umbellatum var. lautum</i>	PDPGN086UX			G5T1	S1.1	1B.1
29 Scott Valley phacelia <i>Phacelia greenei</i>	PDHYD0C1V0			G2	S2.2	1B.2
30 Shasta chaenactis <i>Chaenactis suffrutescens</i>	PDAST200H0			G3	S3	1B.3
31 Siskiyou Mountains salamander <i>Plethodon stormi</i>	AAAAD12180		Threatened	G2G3	S1S2	
32 Siskiyou fireweed <i>Epilobium siskiyouense</i>	PDONA06100			G3	S2.2	1B.3
33 Siskiyou mariposa-lily <i>Calochortus persistens</i>	PMLIL0D140	Candidate	Rare	G2	S2.2	1B.2
34 Siskiyou phacelia <i>Phacelia leonis</i>	PDHYD0C2N0			G2	S2.2	1B.3
35 South Fork Mtn. lupine <i>Lupinus elmeri</i>	PDFAB2B1G0			G1	S1.2	1B.2
36 Trinity buckwheat <i>Eriogonum alpinum</i>	PDPGN08060		Endangered	G2	S2.2	1B.2
37 Warner Mountains buckwheat <i>Eriogonum umbellatum var. glaberrimum</i>	PDPGN086U2			G5T2?	S1.3	1B.3
38 bank swallow <i>Riparia riparia</i>	ABPAU08010		Threatened	G5	S2S3	
39 blushing wild buckwheat <i>Eriogonum ursinum var. erubescens</i>	PDPGN08632			G3G4T2	S2.3	1B.3
40 brook pocket moss <i>Fissidens aphelotaxifolius</i>	NBMUS2W290			GU	S1.2	2.2
41 coast sidalcea <i>Sidalcea oregana ssp. eximia</i>	PDMAL110K9			G5T1	S1.2	1B.2
42 crested potentilla <i>Potentilla cristae</i>	PDROS1B2F0			G2	S2.3	1B.3
43 downy sideband <i>Monadenia callipeplus</i>	IMGASC7110			G1G2	S1S2	
44 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC



California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Greenview, McConaughy Gulch, Etna, and Callahan Quads and Surrounding Quads for:

Scott River Fish Passage through Diversion Ditch Re-Profiling

T43N R10W S2 & 22; T42N R09W S33; T41N R09W S15; T40N R08W S15 & 20

United States

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
45 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	
46 great blue heron <i>Ardea herodias</i>	ABNGA04010			G5	S4	
47 greater sandhill crane <i>Grus canadensis tabida</i>	ABNMK01014		Threatened	G5T4	S2	
48 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S4.2	4.2
49 little hulsea <i>Hulsea nana</i>	PDAST4Z060			G4	S2.3	2.3
50 little-leaved huckleberry <i>Vaccinium scoparium</i>	PDERI180Y0			G5	S2.2?	2.2
51 northern goshawk <i>Accipiter gentilis</i>	ABNKC12060			G5	S3	SC
52 northern spotted owl <i>Strix occidentalis caurina</i>	ABNSB12011	Threatened		G3T3	S2S3	SC
53 northwestern moonwort <i>Botrychium pinnatum</i>	PPOPH010V0			G4?	S1.3?	2.3
54 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	
55 prairie falcon <i>Falco mexicanus</i>	ABNKD06090			G5	S3	
56 rattlesnake fern <i>Botrychium virginianum</i>	PPOPH010H0			G5	S1.2	2.2
57 showy raillardella <i>Raillardella pringlei</i>	PDAST7X030			G2	S2.2	1B.2
58 silky balsamroot <i>Balsamorhiza sericea</i>	PDAST110C0			G4Q	S2.3	1B.3
59 silver-haired bat <i>Lasionycteris noctivagans</i>	AMACC02010			G5	S3S4	
60 subalpine fir <i>Abies lasiocarpa</i> var. <i>lasiocarpa</i>	PGPIN01072			G5T5	S3.3	2.3
61 summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i>	AFCHA0213B			G5T4Q	S2	SC
62 thread-leaved beardtongue <i>Penstemon filiformis</i>	PDSCR1L2A0			G3	S3	1B.3
63 tundra thread moss <i>Pohlia tundrae</i>	NBMUS5S1B0			G2G3	S2.3	2.3
64 water bulrush <i>Schoenoplectus subterminalis</i>	PMCYP0Q1G0			G4G5	S2S3	2.3
65 willow flycatcher <i>Empidonax traillii</i>	ABPAE33040		Endangered	G5	S1S2	
66 woolly balsamroot <i>Balsamorhiza lanata</i>	PDAST11047			G2	S2.2	1B.2

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Greenview, McConaughy Gulch, Etna, and Callahan Quads and Surrounding Quads for:

Scott River Fish Passage through Diversion Ditch Re-Profiling

T43N R10W S2 & 22; T42N R09W S33; T41N R09W S15; T40N R08W S15 & 20

United States

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
67 yellow-based sideband <i>Monadenia infumata ochromphalus</i>	IMGASC7051			G2T1	S1	



**EXHIBIT A**  
**Farmer's Ditch Fish Screen**  
**Statement of Work**

The Department of Fish and Game's, Yreka Fish Habitat Improvement Shop (Department) will construct a new fish screen on the Farmer's Ditch diversion ditch located on the Scott River, a tributary to the Klamath River, in Siskiyou County, under the following conditions and terms:

1. Work will be implemented within an existing diversion ditch on the Scott River, Siskiyou County. The project is located in Township 40N, Range 9W, Section 1, of the Callahan 7.5 Minute U.S.G.S. Quadrangle. Latitude 41.34377; Longitude -122.82403 as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
2. The Department will construct a vertical, self-cleaning fish screen with piped bypass return to the Scott River. The screen will be located within the irrigation diversion ditch immediately below the point of diversion of the Scott River. The screen will be constructed to adequately screen 36 cubic feet per second (cfs) while meeting DFG and NOAA Fisheries criteria for fish screens. The screen design will be similar to proven Department built and operated fish screens. It will be equipped with a paddle wheel driven cleaning system, and wedge wire screening material.
3. Fish screen and fish passage design/plans shall be developed by the Department of Fish and Game's Fisheries Engineering Team and work implemented by the Department's Yreka Fish Habitat Improvement Shop (Screen Shop).
4. All fish screening projects will follow guidelines developed by DFG and NOAA Fisheries as described in Appendix S, June 2000 Version, Third Edition, *California Salmonid Stream Habitat Restoration Manual*, Flosi et al.
5. Construction of the new screen will take place within the diversion ditch during the late-fall/winter period when the diversion is operating at a low flow regime.
6. Work in flowing streams is restricted to June 15 through October 15. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.
7. The Department will not proceed with on the ground implementation until all necessary permits and consultations are secured.
8. Upon completion of the project, the Department shall develop a project report. The report shall include, but not necessarily be limited to the following information:
  - Project name
  - Geographic area (e.g., watershed name)

- Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
- Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
- Project start and end dates and the number of person hours expended
- Labeled before and after photographs of any restoration activities and techniques
- Specific project access using public and private roads and trails, with landowner name and address
- Complete as built project description
- Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (SC) (Report N/A to those that do not apply)

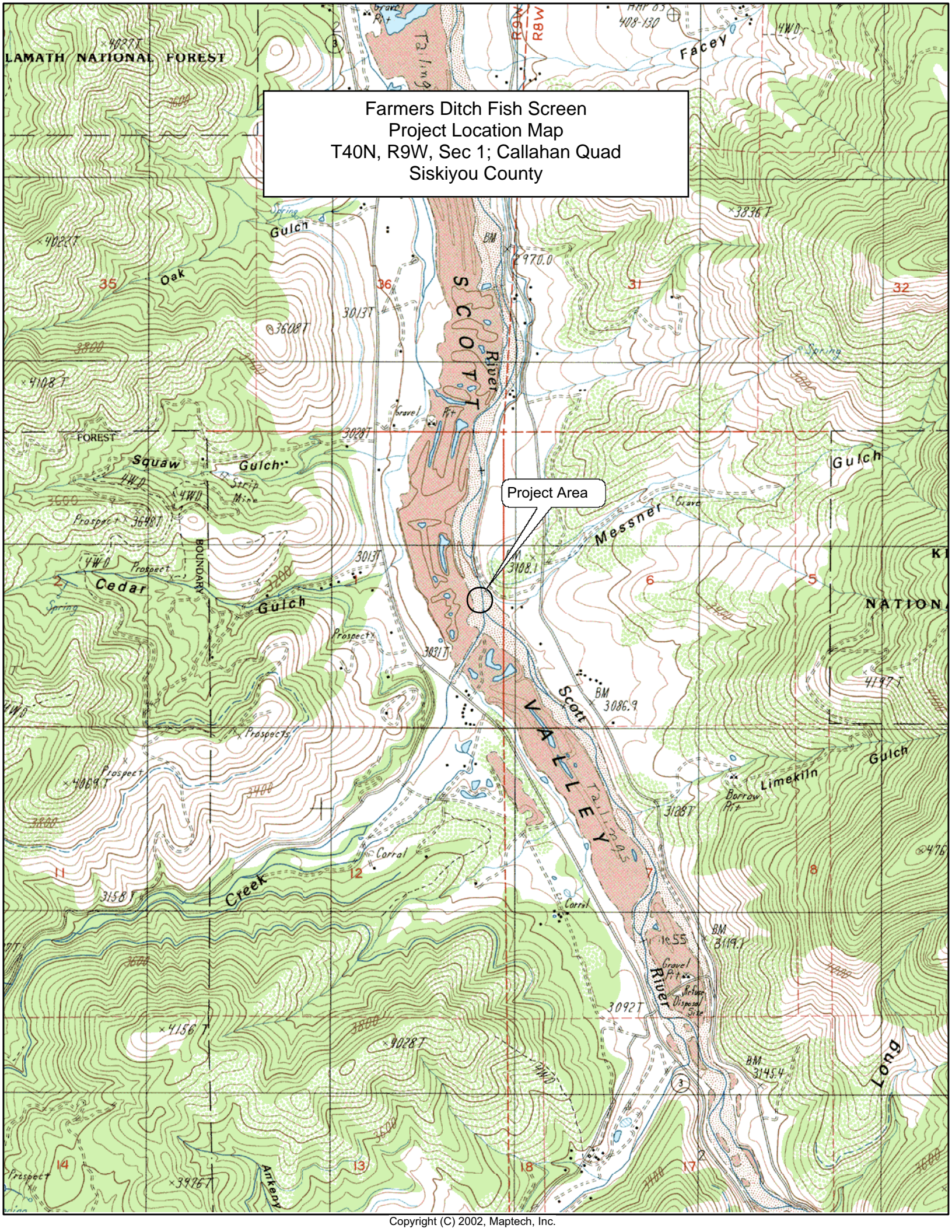
#### Habitat Projects (All)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority;
- Name the priority habitat limiting factors identified in that plan that are addressed by the project;
- Type of monitoring included in the project:
  - ✓ Design spec achieved
  - ✓ Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

#### Fish Screen projects (SC)

- Miles of stream treated
- Number of fish screens installed / modified
- Flow rate in cfs of diversions treated
- Acre-feet of water protected by screens





Farmers Ditch Fish Screen  
Project Location Map  
T40N, R9W, Sec 1; Callahan Quad  
Siskiyou County

Project Area



California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Callahan Quad and Surrounding Quads for:

Farmer's Ditch Fish Passage Project

T40N, R9W, Sec 1; Siskiyou County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 American (=pine) marten <i>Martes americana</i>	AMAJF01010			G5	S3S4	
2 California wolverine <i>Gulo gulo</i>	AMAJF03010		Threatened	G4	S2	
3 Cascade grass-of-Parnassus <i>Parnassia cirrata</i> var. <i>intermedia</i>	PDSAX0P044			G5T2T3	S2	2.2
4 Cascades frog <i>Rana cascadae</i>	AAABH01060			G3G4	S3	SC
5 Darlingtonia Seep	CTT51120CA			G4	S3.2	
6 Dudley's rush <i>Juncus dudleyi</i>	PMJUN01390			G5	S2.3?	2.3
7 Engelmann spruce <i>Picea engelmannii</i>	PGPIN03030			G5	S2.2	2.2
8 English Peak greenbriar <i>Smilax jamesii</i>	PMSMI010D0			G2	S2	1B.3
9 Great Basin claytonia <i>Claytonia umbellata</i>	PDPOR030P0			G5?	S1.3	2.3
10 Klamath manzanita <i>Arctostaphylos klamathensis</i>	PDERI041R0			G2	S2	1B.2
11 Pacific fisher <i>Martes pennanti</i> ( <i>pacifica</i> ) <i>DPS</i>	AMAJF01021	Candidate	unknown code...	G5	S2S3	SC
12 Pacific tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
13 Pickering's ivesia <i>Ivesia pickeringii</i>	PDROS0X0D0			G2	S2.2	1B.2
14 Scott Mountain bedstraw <i>Galium serpyllifolium</i> ssp. <i>scotticum</i>	PDRUB0N1Y6			G4G5T2	S2.2	1B.2
15 Scott Mountain phacelia <i>Phacelia dalesiana</i>	PDHYD0C140			G3	S3.3	4.3
16 Scott Mountain sandwort <i>Minuartia stolonifera</i>	PDCAR0G110			G1	S1.3	1B.3
17 Scott Mountains fawn lily <i>Erythronium citrinum</i> var. <i>roderickii</i>	PMLIL0U042			G4T3	S3	1B.3
18 Scott Valley buckwheat <i>Eriogonum umbellatum</i> var. <i>lautum</i>	PDPGN086UX			G5T1	S1.1	1B.1
19 Scott Valley phacelia <i>Phacelia greenei</i>	PDHYD0C1V0			G2	S2.2	1B.2
20 Shasta chaenactis <i>Chaenactis suffrutescens</i>	PDAST200H0			G3	S3	1B.3
21 Siskiyou fireweed <i>Epilobium siskiyouense</i>	PDONA06100			G3	S2.2	1B.3
22 Siskiyou phacelia <i>Phacelia leonis</i>	PDHYD0C2N0			G2	S2.2	1B.3
23 South Fork Mtn. lupine <i>Lupinus elmeri</i>	PDFAB2B1G0			G1	S1.2	1B.2

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Callahan Quad and Surrounding Quads for:

Farmer's Ditch Fish Passage Project

T40N, R9W, Sec 1; Siskiyou County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 Trinity buckwheat <i>Eriogonum alpinum</i>	PDPGN08060		Endangered	G2	S2.2	1B.2
25 bank swallow <i>Riparia riparia</i>	ABPAU08010		Threatened	G5	S2S3	
26 brook pocket moss <i>Fissidens aphelotaxifolius</i>	NBMUS2W290			GU	S1.2	2.2
27 coast sidalcea <i>Sidalcea oregana ssp. eximia</i>	PDMAL110K9			G5T1	S1.2	1B.2
28 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
29 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S4.2	4.2
30 little hulsea <i>Hulsea nana</i>	PDAST4Z060			G4	S2.3	2.3
31 little-leaved huckleberry <i>Vaccinium scoparium</i>	PDERI180Y0			G5	S2.2?	2.2
32 northern goshawk <i>Accipiter gentilis</i>	ABNKC12060			G5	S3	SC
33 northern spotted owl <i>Strix occidentalis caurina</i>	ABNSB12011	Threatened		G3T3	S2S3	SC
34 northwestern moonwort <i>Botrychium pinnatum</i>	PPOPH010V0			G4?	S1.3?	2.3
35 prairie falcon <i>Falco mexicanus</i>	ABNKD06090			G5	S3	
36 rattlesnake fern <i>Botrychium virginianum</i>	PPOPH010H0			G5	S1.2	2.2
37 showy raillardella <i>Raillardella pringlei</i>	PDAST7X030			G2	S2.2	1B.2
38 silky balsamroot <i>Balsamorhiza sericea</i>	PDAST110C0			G4Q	S2.3	1B.3
39 silver-haired bat <i>Lasionycteris noctivagans</i>	AMACC02010			G5	S3S4	
40 subalpine fir <i>Abies lasiocarpa var. lasiocarpa</i>	PGPIN01072			G5T5	S3.3	2.3
41 thread-leaved beardtongue <i>Penstemon filiformis</i>	PDSCR1L2A0			G3	S3	1B.3
42 tundra thread moss <i>Pohlia tundrae</i>	NBMUS5S1B0			G2G3	S2.3	2.3
43 water bulrush <i>Schoenoplectus subterminalis</i>	PMCYP0Q1G0			G4G5	S2S3	2.3
44 willow flycatcher <i>Empidonax traillii</i>	ABPAE33040		Endangered	G5	S1S2	
45 woolly balsamroot <i>Balsamorhiza lanata</i>	PDAST11047			G2	S2.2	1B.2

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Callahan Quad and Surrounding Quads for:

Farmer's Ditch Fish Passage Project

T40N, R9W, Sec 1; Siskiyou County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
46 yellow-based sideband <i>Monadenia infumata ochromphalus</i>	IMGASC7051			G2T1	S1	



EXHIBIT A  
Dew's Ditch Fish Screen

The California Department of Fish and Game's, Yreka Fish Habitat Improvement Shop (Department) will improve fish passage and fish screening at a diversion located on Mill Creek, a tributary to Shackleford Creek, in Siskiyou County, under the following conditions and terms:

1. Work will be implemented on Mill Creek, approximately 1.5 miles upstream from the confluence of Shackleford Creek, Siskiyou County. The project is located in Township 43N, Range 10W, Section 14, of the Greenview 7.5 Minute U.S.G.S. Quadrangle. Latitude 41.5748; Longitude -122.9590 as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
2. The Department will construct a diagonal, vertical, self-cleaning fish screen with piped bypass return to Mill Creek. The screen will be located within the irrigation diversion ditch immediately below the point of diversion of Mill Creek. The screen will be constructed to adequately screen 1.4 cubic feet per second (cfs) while meeting DFG and NOAA Fisheries criteria for fish screens. The screen design will be similar to that of proven Department built and operated fish screens within the region. It will be equipped with a paddle wheel driven cleaning system, and 3/32 inch perforated plate screening material.
3. Work in flowing streams is restricted to June 15 through October 15. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.
4. Fish screen design and construction will follow guidelines developed by DFG and NOAA Fisheries as described in Appendix S, June 2000 Version, Third Edition, *California Salmonid Stream Habitat Restoration Manual*, Flosi et al.
5. The Department will not proceed with on the ground implementation until all necessary permits and consultations are secured.
6. If the project requires dewatering of the site, and the relocation of salmonids, the Department will implement the following measures to minimize harm and mortality to listed salmonids:
  - Fish relocation and dewatering activities shall only occur between July 1 and October 31 of each year.
  - The Department shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
  - All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act*, June 2000.
  - The Department will record all fish relocation data on a standardized form.
  - Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.

7. Fish screen design/plans shall be developed by the Department of Fish and Game's Fisheries Engineering Team and work implemented by the Department's Yreka Fish Habitat Improvement Shop (Screen Shop).
8. Upon completion of the project, the Department shall develop a project report. The report shall include, but not necessarily be limited to the following information:
  - Project name
  - Geographic area (e.g., watershed name)
  - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
  - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
  - Project start and end dates and the number of person hours expended
  - Labeled before and after photographs of any restoration activities and techniques
  - Specific project access using public and private roads and trails, with landowner name and address
  - Complete as built project description
  - Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HB) (Report N/A to those that do not apply)

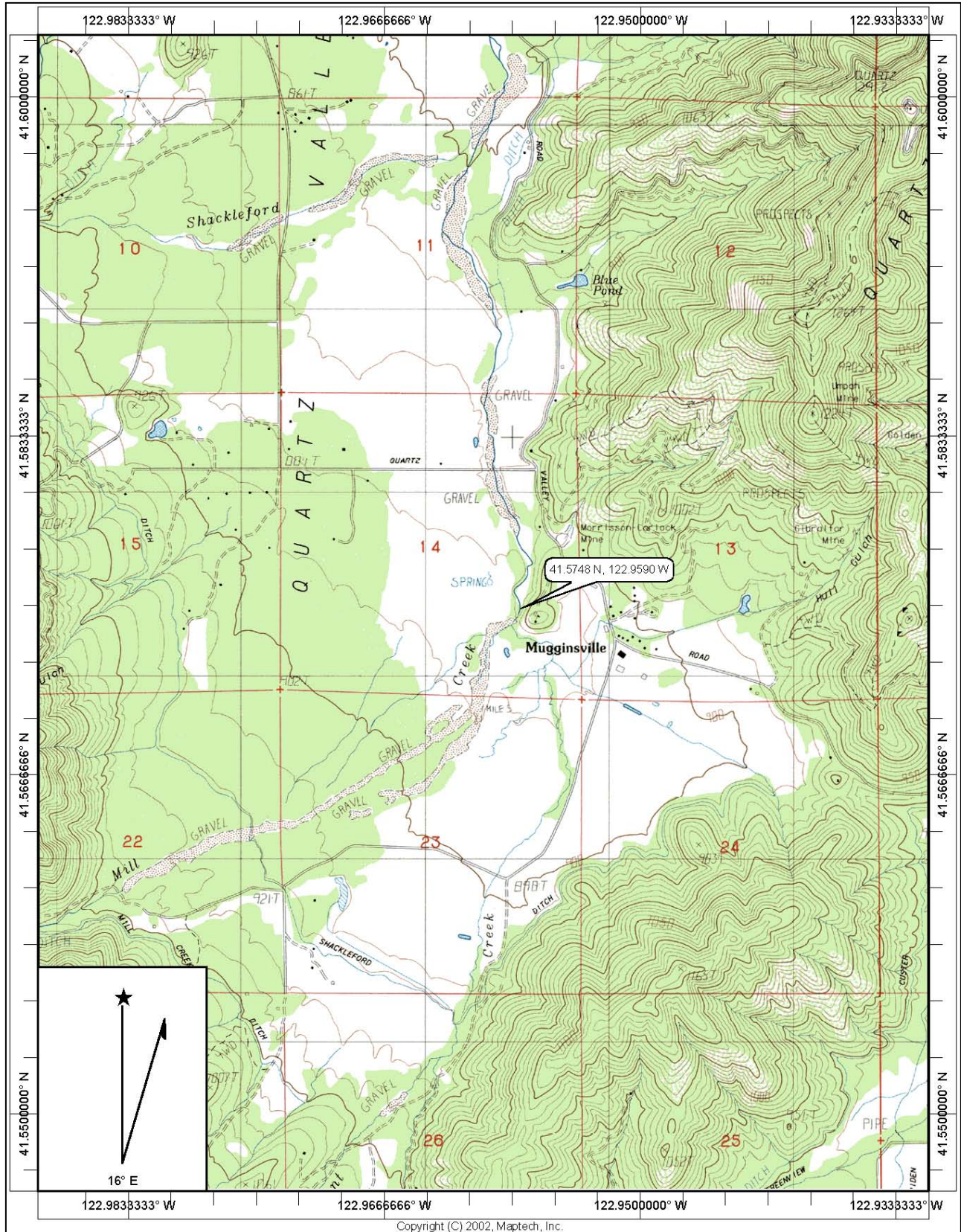
Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
  - Design spec achieved
  - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Fish Screen projects (SC)

- Miles of stream treated
- Number of fish screens installed / modified
- Flow rate in cfs of diversions treated
- Acre-feet of water protected by screens

Exhibit C  
Dew's Ditch Fish Screen  
Project Location Map  
T43N, R10W, S14 Greenview Quad  
Siskiyou County



California Department of Fish and Game  
Natural Diversity Database  
Selected Elements by Common Name - Portrait  
Dew's Ditch Fish Screen

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 American (=pine) marten <i>Martes americana</i>	AMAJF01010			G5	S3S4	
2 American peregrine falcon <i>Falco peregrinus anatum</i>	ABNKD06071	Delisted	unknown code...	G4T3	S2	
3 English Peak greenbriar <i>Smilax jamesii</i>	PMSMI010D0			G2	S2	1B.3
4 English sundew <i>Drosera anglica</i>	PDDRO02010			G5	S2S3	2.3
5 Henderson's fawn lily <i>Erythronium hendersonii</i>	PMLIL0U070			G4	S1.3	2.3
6 Howell's sandwort <i>Minuartia howellii</i>	PDCAR0G0F0			G4	S3.2	1B.3
7 Klamath Mountain buckwheat <i>Eriogonum hirtellum</i>	PDPGN082T0			G2	S2.2	1B.3
8 Klamath gentian <i>Gentiana plurisetosa</i>	PDGEN060V0			G2G3	S2S3.3	1B.3
9 Oregon polemonium <i>Polemonium carneum</i>	PDPLM0E050			G4	S1	2.2
10 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate	unknown code...	G5	S2S3	SC
11 Pacific silver fir <i>Abies amabilis</i>	PGPIN01010			G5	S3.3	2.3
12 Scott Bar salamander <i>Plethodon asupak</i>	AAAAD12560		Threatened	G1G2	S1S2	
13 Scott Mountain bedstraw <i>Galium serpticum ssp. scotticum</i>	PDRUB0N1Y6			G4G5T2	S2.2	1B.2
14 Scott Valley buckwheat <i>Eriogonum umbellatum var. lautum</i>	PDPGN086UX			G5T1	S1.1	1B.1
15 Scott Valley phacelia <i>Phacelia greenei</i>	PDHYD0C1V0			G2	S2.2	1B.2
16 Shasta chaenactis <i>Chaenactis suffrutescens</i>	PDAST200H0			G3	S3	1B.3
17 Siskiyou Mountains salamander <i>Plethodon stormi</i>	AAAAD12180		Threatened	G2G3	S1S2	
18 Siskiyou fireweed <i>Epilobium siskiyouense</i>	PDONA06100			G3	S2.2	1B.3
19 Siskiyou mariposa-lily <i>Calochortus persistens</i>	PMLIL0D140	Candidate	Rare	G2	S2.2	1B.2
20 Warner Mountains buckwheat <i>Eriogonum umbellatum var. glaberrimum</i>	PDPGN086U2			G5T2?	S1.3	1B.3
21 bank swallow <i>Riparia riparia</i>	ABPAU08010		Threatened	G5	S2S3	
22 blushing wild buckwheat <i>Eriogonum ursinum var. erubescens</i>	PDPGN08632			G3G4T2	S2.3	1B.3
23 coast sidalcea <i>Sidalcea oregana ssp. eximia</i>	PDMAL110K9			G5T1	S1.2	1B.2



California Department of Fish and Game  
Natural Diversity Database  
Selected Elements by Common Name - Portrait  
Dew's Ditch Fish Screen

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 crested potentilla <i>Potentilla cristae</i>	PDROS1B2F0			G2	S2.3	1B.3
25 downy sideband <i>Monadenia callipeplus</i>	IMGASC7110			G1G2	S1S2	
26 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	
27 great blue heron <i>Ardea herodias</i>	ABNGA04010			G5	S4	
28 greater sandhill crane <i>Grus canadensis tabida</i>	ABNMK01014		Threatened	G5T4	S2	
29 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S4.2	4.2
30 northwestern moonwort <i>Botrychium pinnatum</i>	PPOPH010V0			G4?	S1.3?	2.3
31 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	
32 prairie falcon <i>Falco mexicanus</i>	ABNKD06090			G5	S3	
33 subalpine fir <i>Abies lasiocarpa</i> var. <i>lasiocarpa</i>	PGPIN01072			G5T5	S3.3	2.3
34 woolly balsamroot <i>Balsamorhiza lanata</i>	PDAST11047			G2	S2.2	1B.2
35 yellow-based sideband <i>Monadenia infumata ochromphalus</i>	IMGASC7051			G2T1	S1	